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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,272	08/26/2003	Satoshi Seki	03500.017522.	2632

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EXAMINER

MOUTTET, BLAISE L

ART UNIT PAPER NUMBER

2853

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/647,272	SEKI ET AL.	
	Examiner	Art Unit	
	Blaise L. Mouttet	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☒ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 6-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/10/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The IDS submitted November 10, 2004 has been considered by the examiner.

### ***Drawings***

2. The drawings were received on February 28, 2005. These drawings are acceptable.

### ***Specification***

3. The corrections to the specification received February 28, 2005 are acceptable.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3, 4, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami et al. US 6,234,604 in view of Terasawa et al. US 4,970,534.

Kawakami et al. discloses, regarding claims 1 and 13, an inkjet recording apparatus (figure 1) and recovery control method for executing recording by ejecting ink onto a recording medium based on recording data using a recording head for ejecting the ink from ejection ports, comprising:

recovery means (equivalent to device for performing flushing of recording head) for executing recovery processing for maintaining the ink ejection capability of the recording head (column 1, lines 45-65, column 4, lines 37-46);

a cap member (17) for capping the ejection ports of the recording head (column 5, lines 5-11);

measurement means (equivalent to first timer 26) for measuring a cap-open period that is an elapsed period of a cap-open state while recording onto the recording medium, in which the ejection ports are not capped with the cap member (17) (figure 6, steps b-c, column 4, lines 30-36, as clear from figure 6 and the related description the measurement is performed during printing and is used to determine whether printing is suspended); and

control means (equivalent to controller for performing flushing of recording head) for executing the recovery processing (figure 6, step e) by the recovery means when the cap-open period cumulated by cumulation means (the counting by the timer 26) exceeds a predetermined period (figure 6, step c), wherein the control means resets the cumulated period (figure 6, step f) when the recovery processing (figure 6, step e) is executed while the cap open period (predetermined time set to first timer) is cumulated.

Regarding claim 3, the measurement means uses the elapsed period during which the recording (printing) is executed to the recording medium as the cap open period (column 4, lines 30-36).

Regarding claim 4, the cap member is moved from a capping state capping the ejection ports to a cap open state in which the ejection ports are not capped as indicated by column 4, lines 5-7 and column 4, lines 30-32.

Regarding claim 11, a plurality of cap members (15, 16) make up cap member (17) (column 4, lines 5-8), and the cap open period is measured and cumulated by the measurement means for both (i.e. each) cap members (column 4, lines 30-36).

Regarding claim 12, a plurality of the recording heads (8, 9) are used in correspondence to the colors (black or MCY) of the inks to be recorded (column 3, lines 57-62), and the cap open period is measured and cumulated for both (i.e. each) of the ink colors (column 4, lines 30-36).

Kawakami et al. fails to disclose, regarding claims 1, 4 and 13, capping means for moving the cap member in a direction where the cap member approaches the

recording head and in a direction where the cap member separates from the recording head.

Terasawa et al. discloses capping means (drive gear and cams) for moving a cap member in a direction where the cap member approaches a recording head and in a direction where the cap member separates from the recording head (abstract).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include capping means as disclosed by Terasawa et al. to move the cap member of Kawakami et al.

The motivation for doing so would have been to provide good sealing force for the cap as described by column 2, lines 53-62 of Terasawa et al.

5. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami et al. US 6,234,604 in view of Terasawa et al. US 4,970,534, as applied to claim 1, and further in view of Hanabusa et al. US 5,459,496.

Kawakami et al. in view of Terasawa et al. render obvious the subject matter of claim 1 as described in the '35 USC 103 rejection above.

Kawakami et al. in view of Terasawa et al. fails to disclose that the flushing recovery process (figure 6, step e of Kawakami et al.) includes suction recovery processing for discharging inks from the ejection ports by suction.

Hanabusa et al. discloses the use of suction pressure for facilitating the discharging of ink during recovery (column 6, lines 52-58).

It would have been obvious for a person of ordinary skill in the inkjet art at the time of the invention to include suction recovery as taught by Hanabusa et al. in the recovery processing of Kawakami et al. in view of Terasawa et al.

The motivation for doing so would have been to facilitate the recovery and allow for storage of waste ink as taught by column 6, lines 52-58 of Hanabusa et al.

### ***Allowable Subject Matter***

6. Claim 6-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

7. Applicant's arguments filed February 28, 2005 have been fully considered but they are not persuasive.

The applicant has amended the claims to include a limitation drawn to the measurement means measuring while recording onto the recording medium and to incorporate subject matter from canceled dependent claims 2 and 14 into the independent claims.

Applicant's argument that the control means of Kawakami et al. '604 does not reset the cumulated period when the recovery processing is executed while the cap-open period is cumulated is not persuasive. An examination of figure 6 of Kawakami et al. identifies step f as the resetting of the first timer (measuring the cap open time), step

e as the recovery processing, and step c as the cumulation of the timer. A direct comparison with figure 7 of applicant's drawings (representative of what is being claimed) identifies a direct correspondence between this aspect of applicant's invention and the prior art with step c of the prior art compatible with S703, step e of the prior art compatible with S704 and step f of the prior art compatible with S705.

Applicant's arguments on this point are thus clearly without merit.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



**Contact Information**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet who may be reached at telephone number (571) 272-2150. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, Art Unit 2853, can be reached at (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet March 11, 2005

Bm 3/11/2005

  
LAMSON NGUYEN  
PRIMARY EXAMINER  
8/17/05